

### **ABSTRACT OF THE DISCLOSURE**

CO<sub>2</sub> emissions from syngas conversion processes are reduced by use of a multi-stage Fischer-Tropsch reaction system. A process for the conversion of syngas using a Fischer-Tropsch reactor comprises forming a first syngas and reacting at least a portion of the first syngas in a Fischer-Tropsch reactor to form a first hydrocarbonaceous product and a second syngas. The second syngas is mixed with a hydrogen-containing stream to provide an adjusted syngas, at least a portion of which is reacted in a dual functional syngas conversion reactor to form a second hydrocarbonaceous product and a third syngas comprising a reduced amount of CO<sub>2</sub> than was present in the adjusted syngas.